

## ABSTRACT

It is an object of the present invention to provide signals which allow colors in a wider color range than predetermined standards, which can be handled by apparatus according to such predetermined standards. A primary color converter 62 converts first color signals having primary color points in a wider color range than the primary color points according to BT.709 into second color signals based on the primary colors according to BT.709. A photoelectric transducer 63 converts the second color signals into third color signals according to photoelectric transducer characteristics defined in a numerical range wider than a range from 0 to 1.0 of color signals corresponding to a luminance signal and color difference signals according to BT.709. A color signal converter 64 converts the third color signals into a luminance signal and color difference signals. A corrector 64A incorporated in the color signal converter corrects the color difference signals into color difference signals in a range from -0.57 to 0.56 containing a range from -0.5 to 0.5 according to BT.709, which color difference signals are assigned to an integral value in a range from 1 to 254 containing a range from 16 to 240 according to BT.709. The present

invention is applicable to a video camera, for example.